

terms "in an amount"; "at a frequency"; and "for a duration" as recited in the full context of the claims require achieving a clinically measurable endpoint (e.g., the reduction or elimination of asthma and non-invasive fungus-induced rhinosinusitis). For example, claim 70 recites mucoadministering a formulation "in an amount, at a frequency, and for a duration effective to reduce or eliminate asthma and non-invasive fungus-induced rhinosinusitis." Thus, a person having ordinary skill in the art would have understood that the formulation must be mucoadministered in an amount, at a frequency, and for a duration effective to attain the clinical endpoint of reduction or elimination of asthma and non-invasive fungus-induced rhinosinusitis. Taken together, a person of ordinary skill in the art reading the present claims in light of Applicant's specification would have understood the metes and bounds of the presently claimed invention.

In addition, the term "at least a portion of" has a clear and unambiguous meaning. As defined in The American Heritage Dictionary of the English Language (Third Edition, 1992), the term "portion" means "[a] section or quantity within a larger thing; a part of a whole." Thus, a person having ordinary skill in the art would have understood the meaning of "at least a portion of" as recited in the present claims. In light of the above, Applicant respectfully requests withdrawal of the rejection of claims 70-126 under 35 U.S.C. §112, second paragraph.

Rejection under 35 U.S.C. §112, first paragraph

The Examiner rejected claims 70-126 under 35 U.S.C. §112, first paragraph, as being based on a disclosure which is not enabling. Specifically, the Examiner stated that the specific antifungal agents and typical dosages employed are critical or essential features to the practice of the invention. In addition, the Examiner states that in the absence of these limitations, undue experimentation would be required by the ordinary worker to practice the claimed invention.

Applicant respectfully disagrees. A person skilled in the art at the time Applicant filed would have been able to practice the presently claimed invention without "undue" experimentation given the extensive guidance provided throughout Applicant's specification. For example, the section at page 38, lines 1-17 of Applicant's specification provides a detailed description about antifungal agents, and the section beginning at page 40, line 1 and extending through page 42, line 3 provides a detailed description about determining effective amounts for

any antifungal agent. Specifically, Applicant's specification teaches that "effective amounts can be determined for individual antifungal agents using commonly available or easily ascertainable information involving antifungal effectiveness concentrations, animal toxicity concentrations, and tissue permeability rates" and that "effective amounts can be determined by routine experimentation *in vitro* or *in vivo*." See, page 42, lines 12-15 and page 42, lines 20-21. An example of routine *in vivo* experimentation that can be used to determine an effective amount of an antifungal agent is disclosed at page 42, lines 21-27 as follows:

a patient having a non-invasive fungus-induced mucositis condition can receive direct mucoadministration of an antifungal agent in an amount close to the MIC calculated from *in vitro* analysis. If the patient fails to respond, then the amount can be increased by, for example, ten fold. After receiving this higher concentration, the patient can be monitored for both responsiveness to the treatment and toxicity symptoms, and adjustments made accordingly.

In addition, amphotericin B can be used as a reference point to help determine effective amounts for different antifungal agents as disclosed at page 41, lines 18-28 as follows:

To help determine effective amounts of different antifungal agents, it can be useful to refer to an effective amount equivalent based on the effective amount of a common antifungal agent. For example, the direct mucoadministration of about 20 mL per nostril per administration (e.g., twice daily) of an amphotericin B irrigation solution containing about 100 mg of amphotericin B per liter is an effective amount as demonstrated herein. The effects produced by this effective amount can be used as a reference point to compare the effects observed for other antifungal agents used at varying concentrations. Once an equivalent effect is observed, then the specific effective amount for that particular antifungal agent can be determined. In this case, that particular amount would be termed an amphotericin B effective amount equivalent.

Thus, a person having ordinary skill in the art following Applicant's teachings would have been able to practice the presently claimed invention without "undue" experimentation. In light of the extensive guidance provided throughout Applicant's specification, Applicant respectfully requests withdrawal of the rejection of claims 70-126 under 35 U.S.C. §112, first paragraph.

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Page : 6




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### CONCLUSION

Applicant submits that claims 70-142 are in condition for allowance, which action is requested. The Examiner is invited to call the undersigned agent at the telephone number below if such will advance prosecution of this application. Filed herewith is a check in payment of the excess claims fees required by the above amendments. The Assistant Commissioner is authorized to charge any other fees or credit any overpayments to Deposit Account No. 06-1050.

Respectfully submitted,

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